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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 10/628,434  | 07/29/2003  | Herbert Hing-Jing Hum | 02207/783002        | 5293             |
| 23838   | 7590        | 09/30/2004            | EXAMINER            |                  |
| KENYON & KENYON<br>1500 K STREET, N.W., SUITE 700<br>WASHINGTON, DC 20005 |             |                       | PEUGH, BRIAN R      |                  |
|   |             |                       | ART UNIT            | PAPER NUMBER     |
|   |             |                       | 2187                |                  |

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/628,434

Applicant(s)

HUM ET AL.

Examiner

Brian R. Peugh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-16 is/are allowed.
- 6) ☒ Claim(s) 17-19 is/are rejected.
- 7) ☒ Claim(s) 1-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/29/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on July 29, 2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

The disclosure is objected to because of the following informalities:

Please insert the updated continuity information:

On page 2, line 4: Replace "2000." with --2000, now U.S. Patent No. 6,643,743.--

Appropriate correction is required.

### ***Claim Objections***

Claims 1-7 and 17-19 objected to because of the following informalities:

Claim 1, line 6: Insert --is-- after "unit".

Claim 17, line 6: Replace "indicating" with --is to indicate--.

Claim 17, line 6: Remove "associated" in order to facilitate proper antecedent basis.

Claims 2-7, 18, and 19 are objected to as being dependent upon a previously objected claim.

Appropriate correction is required.

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**Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 17 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,643,743.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the current application reads upon the aforementioned patent.

With respect to claim 17 of the instant application and claim 13 of U.S. Patent No. 6,643,743, the side-by-side analysis is as follows:

| <u>U.S. Application No. 10/628,434</u>   | <u>U.S. Patent No. 6,643,743</u>   |
|--|--|
| 17. A system comprising:<br><br>a memory;  | 13. A method for pre-fetching data in an N<br><br>sectored cache comprising: receiving a first data<br><br>request from data from a first memory location; |
| A processor coupled to the memory, wherein the<br>processor is to call data from a first memory<br>location in the memory; | Fetching the first data from the first memory<br>location; (Inherently requires a processor or<br>processing unit to perform fetch operation)              |

|  |   |
|--|---|
| A request history buffer to store a flag associated with the first memory location, wherein the flag indicating that the data associated has been called by the processor;   | Storing a flag associated with the first memory location in a request history buffer, the flag indicating that the associated data has been fetched;  |
| A pre-fetch control unit to check for a flag associated with data from a second memory location in the request history buffer, wherein the second memory location is calculated by shifting the first memory location by N in a first direction; | Checking for a flag associated with data from a second memory location in the request history buffer, the second memory location is calculated by shifting the first memory location by N in a first direction; (Inherently requires a controller or control unit to perform check operation)               |
| A pre-fetch cache; and   | Checking a prefetch cache for the presence of data from the second memory location;   |
| A pre-fetcher to pre-fetch data from the second memory location in the memory and store it in the pre-fetch cache, if data from the second memory location is not flagged in the request history buffer or present in the pre-fetch cache.       | Prefetching data from the second memory location, if data from the second memory location is not flagged in the request history buffer or present in the prefetch cache; and (Inherently requires a pre-fetcher or pre-fetching unit to perform pre-fetch operation)  |
|  | Prefetching data from a third memory location, the third memory location is calculated by shifting the first memory location by N in a second direction opposite to the first direction, if data from the second memory location is flagged in the request history buffer or present in the prefetch cache. |

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A comparison of independent claim 17 of the instant case with claim 13 of U.S. Patent No. 6,643,743 reveals that the application claim defines a generic embodiment of the species covered by patented claim 13. Accordingly, the generic application claim 17 is anticipated by the patented species claim 13 of U.S. Patent No. 6,643,743 and therefore precludes the issuance of application claim 17 in accordance with In re Goodman. In other words, patent claim 13 already covers, or "reads on", claim 17 of the application. This is essentially the epitome of obviousness since the application claim is not "in any way unobvious" over the patented claim.

Claims 18 and 19 are rejected as being dependent upon a previously rejected claim.

#### ***Allowable Subject Matter***

Claims 8-16 are allowed over the prior art of record

Claims 1-7 are objected to, but would be allowable if rewritten including the claim corrections disclosed supra.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art corresponds to related caching systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Peugh whose telephone number is 703-306-

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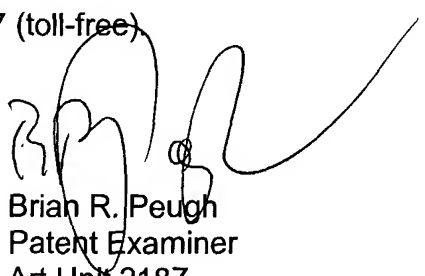
5843. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Friday's from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks, can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 20, 2004



Brian R. Peugh  
Patent Examiner  
Art Unit 2187